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(54) **Double eyelid forming tape or string and method of manufacturing same**

(57) A tape or string that can form a double eyelid with a clear fold easily and safely in a simple manner is constructed by applying an adhesive 2 on a narrow tape member 1 being resiliently elastic, or being stretchable and exhibiting resilient elasticity after being stretched, and providing holding portions 3 having no adhesive at both ends thereof for holding by fingertips. A double eyelid is formed by pressing the tape member 1 on the por-

tion of the eyelid where the user wants to form a fold with both ends held and the tape member 1 stretched, adhering the tape member 1 thereon with the adhesive 2, and releasing the same. Therefore, when the tape member 1 resiliently contracts, it forms an eyelid with a fold.

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Description

[0001] The present invention relates to a double eyelid forming tape or string for forming a clear double eyelid easily in a simple manner, and a method of manufacturing the same.

[0002] Known methods of forming an eyelid with a fold, i.e. a double eyelid, involve bonding the eyelid skin by the use of water borne latex emulsion, polymer emulsion, or the like, or adhering a single-sided adhesive tape, or applying curable polymer.

[0003] However, both of these methods have problems in that they require very exacting tasks, whereby a clear finish cannot be expected unless the user has practised, and in the former adhering method, the skin may be irregularly puckered by the adhesion, whilst in the latter film forming method, the film leaves a print on the eyelid.

[0004] An object of the present invention is to provide double eyelid forming tape or string for forming an eyelid with a clear fold in a simple manner without puckering up the skin or leaving the print of a film thereon.

[0005] Another object of the present invention is to provide a double eyelid forming tape or string that can form a fold directly on the eyelid so that a natural double eyelid is obtained.

[0006] A further object of the present invention is to provide a double eyelid forming tape or string which allows the operation of forming a double eyelid to be safe and easy.

[0007] Still another object of the present invention is to provide a method of manufacturing double eyelid forming tape very easily.

[0008] A double eyelid forming tape according to the present invention comprises a resiliently elastic narrow tape member, and an adhesive applied thereon.

[0009] The tape member may be formed of synthetic resin which is stretchable and exhibits resilient elasticity after being stretched, and the adhesive may be applied on one or both surfaces of the tape member.

[0010] The double eyelid forming tape may be provided with holding portions at both ends the surfaces of which have no adhering property, for being held with the fingertips.

[0011] The tape member may have a release sheet with a breaking point that is broken when tension is applied on one or both surfaces thereof.

[0012] The breaking point is suitably a notched groove formed generally at the centre of the length of the sheet, and the sheet is preferably formed of silicon paper or a film with silicon.

[0013] A method of manufacturing double eyelid forming tape according to the present invention comprises the steps of applying an adhesive on one or both surfaces of a given length of resiliently elastic sheet member, forming holding portions having no adhering property at both widthwise ends thereof, and cutting the same widthwise into narrow strips.

[0014] Another method of manufacturing double eyelid forming tape according to the present invention comprises the steps of applying an adhesive on one or both surfaces of a given length of resiliently elastic sheet member, attaching a release sheet formed with a notched groove generally at the centre of the length thereof on one or both surfaces of the sheet member bearing adhesive, and cutting the same widthwise into narrow strips.

[0015] A double eyelid forming string according to the present invention comprises a resiliently elastic string member, and an adhesive applied thereon.

[0016] The double eyelid forming string may be provided with holding portions having no adhesive property on the surfaces thereof for being held by fingertips at both ends thereof, and the string member may be covered up with a release sheet having a breaking point that is broken when under tension.

[0017] In order to form double eyelid with the double eyelid forming tape, the user holds both ends of the tape member and stretches it into a resiliently stretched state, and in this state, places and presses the portion of the tape member having adhesive at the position of his/her eyelid where he or she wants to form a fold, adheres the tape member, and releases the holding portions at both ends. Then, the tape member resiliently contracts. Since the eyelid is normally projecting toward the front at the centre thereof along the eyeball with respect to both ends, the resiliently contracted tape member breaks into the eyelid on which it is attached and forms a fold on the eyelid. The end portion may be cut afterwards.

[0018] Since the tape member forms a fold for a double eyelid directly on the eyelid as described above, a natural double eyelid may be formed without puckering up the skin or leaving a print of a film on the eyelid as in the conventional methods. In addition, the double eyelid can be made just by stretching both ends of the tape member, and in this state, pressing it against the position of the eyelid where the user wants to form a fold, thereby forming a clear double eyelid in a simple manner.

[0019] In the known methods described above, the user has to use a pusher or the like to form a fold by himself/herself when bonding the eyelid skin or adhering the single-sided adhesive tape or the like on the eyelid. However, the double eyelid forming tape of the present invention forms an eyelid with a fold by its own contractive force, and thus a pusher or the like is not necessary, and formation of double eyelid can be performed safely and easily.

[0020] The invention will now be further described by way of example only with reference to the accompanying drawings in which:

Fig. 1 is a side view showing an embodiment of the double eyelid forming tape according to the present invention.

Fig. 2 is a plan view showing a method of manufacture of a double eyelid forming tape according to the present invention.

Fig. 3 is an explanatory drawing showing preparation for forming a double eyelid by use of the double eyelid forming tape according to the present invention.

Fig. 4 is an explanatory drawing showing the state in which a double eyelid is formed by use of the double eyelid forming tape according to the present invention.

Fig. 5 is a side view showing another embodiment of the double eyelid forming tape according to the present invention.

Fig. 6 is a fragmentary enlarged view of the part A in Fig. 5.

Fig. 7 is a side view showing still another embodiment of the double eyelid forming tape according to the present invention.

Fig. 8 is a view showing a state in which both ends of the double eyelid forming tape shown in Fig. 5 are held.

Fig. 9 is a drawing showing a state in which both ends of the double eyelid forming tape shown in Fig. 5 are being held and stretched in the opposite directions.

Fig. 10 is a side view showing a state in which the double eyelid forming tape shown in Fig. 5 is stretched in the opposite directions.

Fig. 11 is a drawing showing a state in which both ends of the double eyelid forming tape shown in Fig. 7 are being held and stretched in the opposite directions.

Fig. 12 is a cross sectional view showing an embodiment of the double eyelid forming string according to the present invention.

Fig. 13 is a drawing showing a state in which both end of the double eyelid forming string shown in Fig. 12 are being held and stretched in the opposite directions.

Fig. 14 is a perspective view showing an example of manufacture of the double eyelid forming string according to the present invention.

[0021] Fig. 1 shows an embodiment of a double eyelid forming tape constructed by applying an adhesive 2 on

the front and back surfaces of a resiliently elastic narrow tape member 1. Though any tape or tape members 1 described above may be employed so long as it stretches when both ends thereof are held and pulled, and contracts resiliently to the original state on release, it is specially preferable to form it of a synthetic resin which is stretchable and exhibits resilient elasticity after being stretched such as polyethylene. The tape member 1 is generally formed in a narrow tape of about 1 to 3mm in width, but the width is not limited to that range, and the shape does not have to be of accurate tape shape.

[0022] In addition, the adhesive 2 described above may be any type as far as it can be used for the skin.

[0023] Since the tape member 1 is adhered on the eyelid with the both ends thereof held by the fingertips, it is preferably provided at both ends with holding portions 3 having no adhesive property on the surfaces thereof. The holding portions 3 are suitably formed by adhering the covering sheets on the adhesive 2 applied on the front and back surfaces of the tape-shape member 1, as shown in the figure. However, the holding portion 3 may be formed by winding covering sheets at the ends of the tape member 1, by applying an application agent or a chemical agent such as coating material or the like for suppressing adhering property at the ends of the tape member 1, or even by applying no adhesive 2 thereon.

[0024] The holding portion 3 does not have to suppress adhesive property of the adhesive completely. For example, the holding portion 3 may be formed by adhering the covering sheet only on one of the surfaces of the tape member 1, or the suitable holding portion 3 described above may be formed only at one end of the tape member 1. Generally, the holding portion 3 is preferably formed as long as 5mm or more from the end of the tape member 1 for facilitating holding action.

[0025] In the figure, the reference numeral 4 designates a release sheet to be adhered on the portion where the adhesive 2 is applied for facilitating the handling of the double eyelid forming tape.

[0026] The double eyelid forming tape described above can be manufactured with extreme ease, as shown in Fig. 2, by applying an adhesive 12 on the whole area of the front and back surfaces of the resiliently elastic sheet member 11 and has a given length in the direction X, forming holding portions 13 having no adhesive property at both ends when viewed in the widthwise direction (direction W), and cutting it along a number of cutting lines L into narrow strips. In this case, the sheet member 11 may be the same material as the tape member 1 shown in Fig. 1.

[0027] The holding portion 13 may also be formed by adhering covering sheets on the adhesive 12 applied on the front and back surfaces of the sheet member 11, or by applying an application agent or a chemical agent such as coating material or the like for suppressing adhering property, as in the case of the example shown in Fig. 1. In addition, the holding portion 13 may also be

formed by excluding both ends of the sheet member that are used as holding portions from application of an adhesive.

[0028] Alternatively, it can also be formed by adhering a release sheet or the like for facilitating the handling of the double eyelid forming tape on the portion applied with the adhesive 12 in advance, and cutting it with the sheet member 11 along the cutting lines L.

[0029] In the embodiment shown in Fig. 1 and Fig. 2, though the adhesive 2 is applied on both of the front and back surfaces of the resiliently elastic narrow tape member 1, it is not limited thereto. For example, the adhesive 2 may be applied only on either the front surface or the back surface of the resiliently elastic narrow tape member 1, and in this case, the release sheet 4 or the covering sheet must simply be provided on the surface applied with the adhesive 12.

[0030] In the embodiment shown in Fig. 1 and Fig. 2, though the adhesive 2 is applied on the front and back surfaces of the tape member 1 so as to cover up the whole area thereof, it is not limited thereto, and the adhesive 2 may be applied partially on the surface of the tape member 1 that is to be applied with the adhesive 2 as far as it does not have any disadvantage for adhering the tape member under a tension on the eyelid.

[0031] In other words, as far as the both ends of the tape member under a tension is adhered on the eyelid by an adhesive when the tape member is adhered on the eyelid under a tension, the tape member is adhered in such a manner that it breaks into the eyelid by its tensile strength even when no adhesive is applied on the central portion of the tape member, and thus there is no special harm in applying no adhesive on the central portion of the tape member. There is also no special harm in providing the portion where the adhesive is applied and the portion where the adhesive is not applied alternately at short intervals along the length of the tape member 1 for adhering the tape member under tension on the eyelid.

[0032] Therefore, though the adhesive 2 may be applied in such a manner that it covers the whole area of the surface of the tape member 1 on which the adhesive 2 is to be applied, it is not limited thereto, and the adhesive 2 may also be applied to cover a part of the surface of the tape member 1 on which the adhesive 2 is to be applied, as far as a special consideration is given to causing no disadvantage for adhering the tape member on the eyelid in the stretched state.

[0033] Subsequently, a method for forming a eyelid with a fold by the use of the double eyelid forming tape having the construction described above will now be described.

[0034] Fig. 3 shows the tape member 1 formed of synthetic resin being stretchable and exhibiting resilient elasticity even after being stretched, in a state in which the tape member 1 is stretched by holding the holding portions 3 at both ends thereof with fingertips and stretching the same, in other words, the state prepared

for adhering the tape member 1 on the eyelid. In this state, the tape member 1 has a constructive force for resiliently restoring to its original state.

[0035] Then, the user pushes the portion of the tape member 1 where the adhesive 2 is applied against the eyelid 7 where he/she wants to form a fold with the tape member 1 held on the opposite ends and stretched as shown in Fig. 4, adheres the tape member 1 thereon by the adhesive 2, and releases the holding portions 3 at both ends, whereby, the tape member 1 under a tension resiliently contracts. Since the eyelid is normally projecting toward the front at the center thereof along the eyeball with respect to both ends, the resiliently contracted tape member 1 breaks into the eyelid 7 on which it is attached and forms an eyelid with a fold. The holding portions 3 on both ends are cut after the fold is formed.

[0036] Since the tape member 1 forms a fold for double eyelid directly on the eyelid 7, a natural double eyelid may be formed without puckering up the skin or leaving a print of the film on the eyelid as in the conventional methods. In addition, since the user must simply press the tape member 1 being held at both ends and stretched in the opposite directions against the position of the eyelid where he/she wants to form a fold, a clear double eyelid may be formed in a simple manner.

[0037] In the conventional methods described above, the user has to use a pusher or the like to form a fold by himself/herself when bonding the eyelid skin or when adhering single-sided adhesive tape or the like. However, the double eyelid forming tape forms an eyelid with a fold by its own contractive force, and thus the pusher or the like is not necessary, and formation of double eyelid can be performed safely and easily.

[0038] The double eyelid forming tape 20 of the embodiment shown in Fig. 5 - Fig. 6 is provided with sheets 22, 22 in the shape of a narrow tape having a breaking point to be broken at the centre thereof by a tension adhered on the front and back surfaces of the resiliently elastic narrow tape member 21 applied with an adhesive (not shown) respectively.

[0039] The breaking point is preferably formed of a notched groove 23 formed widthwise on the adhering surface of the sheet 22, as shown in a partial enlarged view of Fig. 6.

[0040] In this case, the tape member 21 may be formed of the same material as the tape member 1 in the embodiment shown in Fig. 1, and the sheet 22 may be formed of a film applied with silicon processing or silicon paper formed of paper shaped silicon resin, so that breakage or release from the adhesive may be facilitated.

[0041] In the embodiment shown in Fig. 5 - Fig. 6, though an adhesive is applied on the front and back surfaces of the tape member 21, the double eyelid forming tape 20 is not limited thereto, and, for example, may be applied with the adhesive only on either the front surface or the back surface of the tape member 21.

[0042] The sheet 22 having a breaking point does not

necessarily have to be adhered on both surfaces of the tape member 21. As shown in Fig. 7, the sheet 22 having the breaking point 23a may be adhered either one of the surfaces of the tape member 21.

[0043] In the embodiment shown in Fig. 7, the adhesive is applied only on one of the surfaces of the tape member 21 and a sheet 22 having the breaking point 23a that is cut in advance is adhered only on the surface on which the adhesive 12 is applied. However, the breaking point in this case may be the one as shown in Fig. 6.

[0044] The double eyelid forming tape 20 may be constructed in such a manner that the sheet 22 is attached only on one side of the tape member 21 applied with the adhesive on both front and back surfaces, and a release sheet is attached on the other surface that is not attached with the sheet 22. The release sheet is to be peeled off when the double eyelid forming tape 20 is used.

[0045] Though the notched groove 23 may be provided on the front surface or on the back surface of the sheet 22, providing it on the backside, which is the side where the sheet 22 is attached, makes the notched groove 23 invisible and prevents it from being broken by mistake.

[0046] A method of manufacturing the double eyelid forming tape 20 is basically the same as the one described in conjunction with Fig. 2. To be more precise, it is manufactured by the steps of providing a notched groove 23 on the sheet 22 formed of a film applied with silicon processing or a sheet 22 formed of silicon paper at the center along the length thereof (corresponds to the direction X in Fig. 2), applying an adhesive on one or both of the surfaces of a resiliently elastic tape member 21, adhering the sheet 22 provided with the notched groove 23 on one or both of the surfaces of the tape member 21 applied with the adhesive, applying the sheet 22 formed with the notched groove 23 on one of both of the surfaces of the tape member 21 applied with the adhesive, and cutting it into narrow strips along a number of cutting lines oriented in the direction of width (direction W) in Fig. 2.

[0047] When adhering the sheet 22 only on one of the surfaces of the tape member 21, it is not necessary to apply an adhesive on the other surface, but it is not limited thereto. It is also applicable to adhere the sheet 22 only on one of the surfaces of the tape member 21 that is applied with an adhesive on both of the front and back surfaces, and adhere a release sheet on the surface where the sheet 22 is not adhered, and then cutting it into narrow strips along a number of cutting lines.

[0048] With this method, the double eyelid forming tape 20 may be manufactured with extreme ease.

[0049] The double eyelid forming tape 20 is, as shown in Fig. 8, held with fingers on the left and right sides of the notched groove 23 thereof, and as shown in Fig. 9, the breaking point of the sheet 22 is broken by a tensile strength when the double eyelid forming tape 20 is

stretched from the left and right sides. Therefore, the tape member 21 of the double eyelid forming tape 20 may be stretched in the lateral direction.

[0050] Fig. 10 and Fig. 11 are side views showing the double eyelid forming tape shown in Fig. 5 and Fig. 7 are stretched in the opposite directions. The tape member 21 starts to be stretched from the portion in the vicinity of the breaking point provided at the center of the length thereof when being stretched, and then the portion of the tape member 21 that is at a distance from the breaking point stretches progressively as it is stretched laterally in the opposite directions.

[0051] Though the thickness of the tape member 21 reduces when it is stretched, the appearance of the thickness of the tape member 21 shown in Fig. 10 and Fig. 11 is such that even though the center portion of the tape member 21 is already stretched, the significant portion near both ends is not started to be stretched yet. Therefore, it is understood that the tape member 21 can be stretched to the extent much longer than the state shown in Fig. 10 and Fig. 11.

[0052] The method of forming an eyelid with a fold by the use of the double eyelid forming tape 20 shown in Fig. 5 - Fig. 7 is the same as the method of forming an eyelid with a fold by the use of the double eyelid forming tape according to the embodiment shown in Fig. 1.

[0053] With the double eyelid forming tape 20 according to the embodiment shown in Fig. 5-Fig. 7, since the sheet 22 having a breaking point that is to be broken when being stretched is adhered on one or both of the surfaces of the tape member 21 where an adhesive is applied, the adhesive on the tape member 21 does not stick to the fingers or other articles even without the holding portion or the release paper as in the case of the double eyelid forming tape according to the embodiment shown in Fig. 1.

[0054] When using the double eyelid forming tape 20, the tape member 21 is exposed in the stretched state only by stretching the double eyelid forming tape 20 laterally in the opposite directions. Therefore it is further convenient in comparison with the double eyelid forming tape according to the embodiment shown in Fig. 1.

[0055] Fig. 12 is a cross sectional view showing an embodiment of a double eyelid forming string, and Fig. 13 is a drawing showing a state in which the double eyelid forming string is stretched in the opposite directions.

[0056] As shown in Fig. 12, the double eyelid forming string 30 according to this embodiment is constructed in such a manner that a string member 31 resiliently elastic with an adhesive (not shown) applied thereon is sandwiched and covered by a pair of sheets 32, 32 in the shape of a narrow tape and having a breaking point 33 to be broken when being stretched at the center thereof.

[0057] The sheets 32, 32 are jackets for covering up the string member 31 applied with an adhesive, which are applied with an adhesive (not shown) on the sides that sandwich the string member 31 and joined with

each other. The breaking point 33 is formed of a notched groove provided at the center of the sheet 32. The side of the sheet 32 that sandwiches the string member 31 may be provided with an arcuate groove for accommodating the string member 31 in the longitudinal direction.

[0058] The string member 31 may be formed of the same material as the tape member 1 of the embodiment shown in Fig. 1, and the sheet 32 may be a film applied with silicon processing or silicon paper formed of a paper shaped silicon resin.

[0059] Though the string member 31 applied with an adhesive is covered up by a pair of sheets 32, 32 in the shape of a narrow tape in the embodiment shown in Fig. 12, the double eyelid forming string according to the present invention is not limited to this embodiment. For example, the string member 31 may be covered up by a sheet 32 in the shape of a narrow tape having a breaking point 33 to be broken when it is stretched on one side of the string member 31 and by a release paper on the other side thereof. Alternatively, holding portions having no adhering property for holding with fingertips may be provided at both ends of the string member 31 applied with an adhesive thereon.

[0060] Alternatively, in the double eyelid forming string described above, a tubular jacket having a breaking point 33 to be broken when being stretched at the center of the length thereof may be used for covering up the string member 31 applied with the adhesive instead of covering the string member 31 applied with an adhesive with the tape shaped sheets 32, 32.

[0061] In the double eyelid forming string described above, it is not necessarily required to apply an adhesive all over the surface of the string member 31 as far as it has no disadvantage for adhering the string member under a tension on the eyelid.

[0062] Fig. 14 is an example of a method of manufacturing the double eyelid forming string described above.

[0063] The method of manufacturing the double eyelid forming string 30 comprises the steps of providing a V-shaped notched grooves 33 at the center of the sheet 32 of a given length formed of a film applied with silicon processing or of silicon paper, applying an adhesive on a plurality of resiliently elastic string members 31 cut into more or less the same length as the sheet 32, placing the plurality of string members 31 applied with an adhesive in parallel on the surface of the sheet 32 to be adhered, placing another sheet 32 thereon and joining a pair of sheets with each other, whereby adhering the string member applied with the adhesive in parallel on the seat 32 having a notched groove, and cutting the sheet 32 adhered with the plurality of string members along the string members into narrow strings.

[0064] Though the string member 31 applied with an adhesive are adhered in parallel between a pair of sheets 32, 32 each formed with a notched groove in the direction of the width in the embodiment shown in Fig. 14, it is not limited thereto, and, for example, it is also possible to manufacture it by adhering a plurality of

string members 31 applied with an adhesives in parallel on a sheet 32 formed at the center thereof with a notched groove, adhering a release sheet thereon, and cutting the sheet adhered with the plurality of string member and a release sheet along the string members into narrow strips.

[0065] A method of forming an eyelid with a fold by the use of the double eyelid forming string 30 shown in Fig. 12 is the same as the method of forming an eyelid with a fold by the use of the double eyelid forming tape of the embodiments shown in Fig. 1 and Fig. 5-Fig. 7.

Claims

1. A double eyelid forming tape or string comprising a resiliently elastic narrow tape or string member with an adhesive thereon.
2. A double eyelid forming tape or string according to Claim 1, wherein the tape or string member is formed of synthetic resin which is stretchable and exhibits resilient elasticity after being stretched.
3. A double eyelid forming tape or string according to Claim 1 or 2, wherein the adhesive is applied on one or both of the surfaces of the tape or string member.
4. A double eyelid forming tape or string according to any preceding claim, further comprising end portions without adhesive for holding by the fingertips.
5. A double eyelid forming tape or string according to any preceding claim, wherein a release sheet is adhered on one or both of the surfaces of the tape or string member, the or each release sheet being broken when stretched.
6. A double eyelid forming tape or string according to Claim 5, wherein the or each release sheet has a breaking point which is a notched groove formed generally at the centre of the length of the sheet.
7. A double eyelid forming tape or string according to Claim 5 or 6, wherein the sheet is formed of silicon paper, or a film with silicon thereon.
8. A method of manufacturing a double eyelid forming tape comprising applying an adhesive on one or both surfaces of a resiliently elastic sheet member of a given length, forming holding portions without adhesive property at both ends when viewed in the widthwise direction, and cutting the sheet member in the widthwise direction into narrow strips.
9. A method of manufacturing a double eyelid forming tape comprising applying an adhesive on one or both surfaces of a resiliently elastic sheet member

of a given length attaching a release sheet formed with a notched groove generally at the centre of the length thereof on one or both of the adhesive bearing surfaces of the sheet member, and cutting the same in the widthwise direction into narrow strips. 5

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FIG. 1

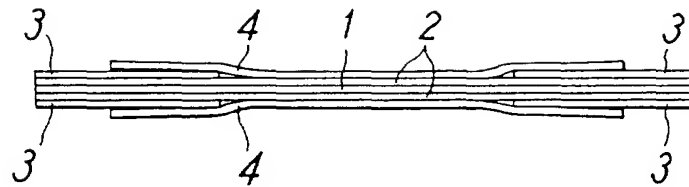


FIG. 2

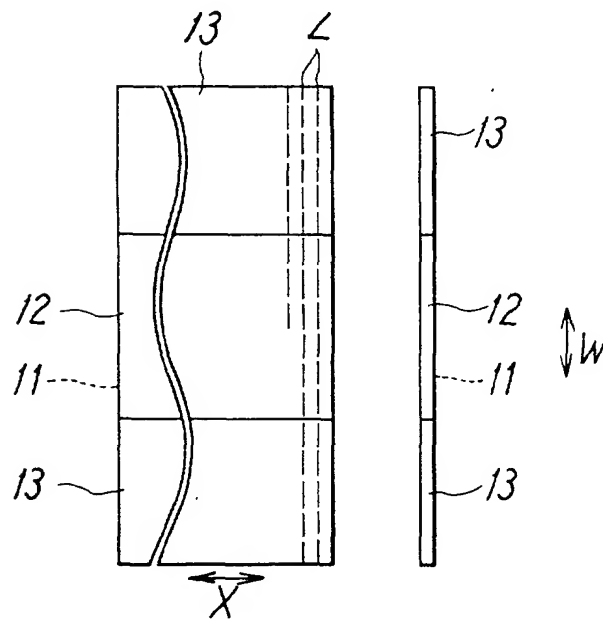


FIG. 3

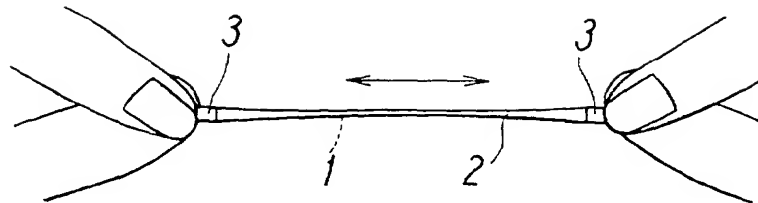


FIG. 4

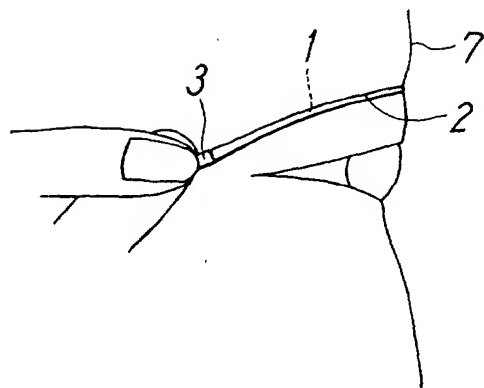


FIG. 5

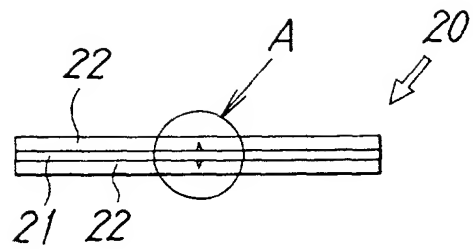


FIG. 6

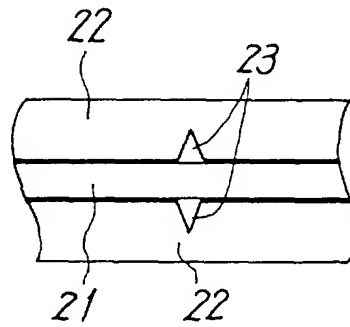


FIG. 7

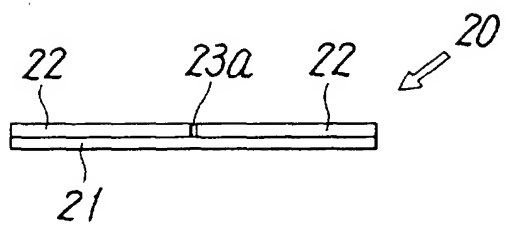


FIG. 8

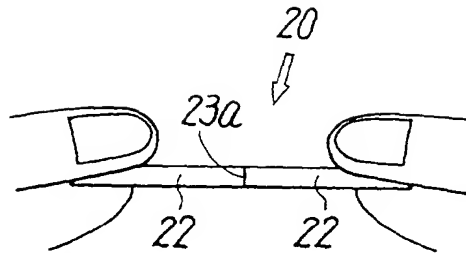


FIG. 9

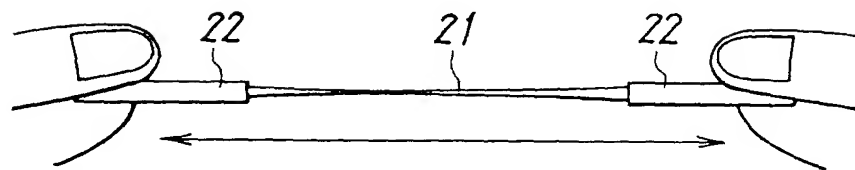


FIG. 10

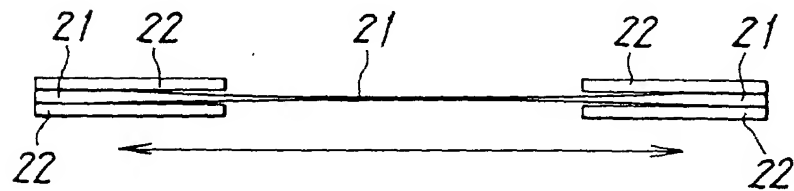


FIG. 11

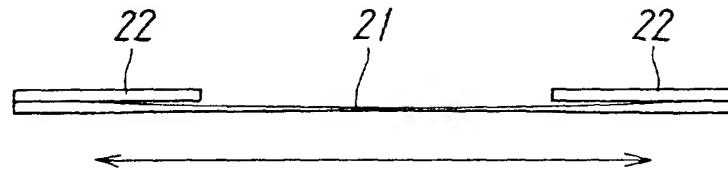


FIG. 12

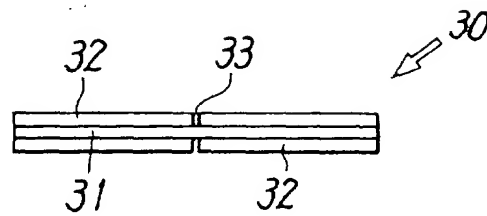


FIG. 13

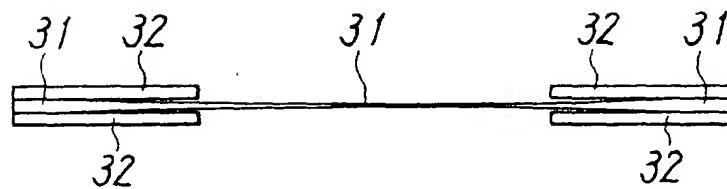


FIG. 14

